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Masaki Oguro

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

BEMBEN, RICHARD M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/721,507 | Applicant(s) OGURO, MASAKI | |
| | Examiner RICHARD M. BEMBEN | Art Unit 2622 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 and 44-57 is/are pending in the application.
- 4a) Of the above claim(s) 14-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 23-42 and 44-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 24, 40 and 41 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1, 24, 40 and 41** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant's amendment filed 14 October 2008 amended claims 1, 24, 40 and 41 to require, *inter alia*, a single chip controller wherein the single chip controller comprises a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal. However, Applicant's specification does not disclose a single chip controller comprising a TV signal encoder. Applicant's specification at ¶ [0039], [0041] and [0048] discloses that "control unit 200" (as seen in Figures 8 & 9) is the single chip controller. Referring to ¶ [0041]: "For

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compactness, typically, the control unit 200 is formed as a single chip" and ¶ [0048]: "Typically, the control unit is a single chip". Referring to ¶ [0039], "Fig. 9 is a detailed functional block diagram of the control unit 200 of Fig. 8". As seen in Figure 9, control unit 200 does not comprise a TV signal encoder. Rather, as seen in Figure 8, "NT/PAL encoder 110" (described in ¶ [0033]) is located outside the single chip controller (i.e. control unit 200). Therefore, claims 1, 24, 40 and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Consequentially, all claims dependent on independent claims 1, 24, 40 and 41 are likewise rejected.

Claim Objections

4. Claim 2 is objected to because of the following informalities: many of the limitations of the controller from claim 1 are repeated. E.g. MPEG, recording/storage medium, USB, audio interface. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-6 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 7,046,276 issued to Hashimoto et al., hereinafter**

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**"Hashimoto", in view of US Pub. No. 2001/0033333 filed by Suzuki et al.,
hereinafter "Suzuki" in view of US Pub. No. 2005/0012826 filed by Hattori et al.,
hereinafter "Hattori".**

Regarding **claim 1**, Hashimoto discloses a video/audio data recording/reproducing apparatus, comprising:

a single chip controller (*refer to c. 8, l. 47 - c. 9, l. 16, "CPU"*) controlling processing by at **least two various** function units as a digital camcorder (*video capture, refer to c. 3, ll. 57, c. 6, ll. 60-67, c. 7, ll. 20-23*), a digital still camera (*still image capture, refer to c. 6, ll. 60-67, c. 7, ll. 20-23*), a video recorder/reproducer (*refer to c. 3, ll. 61-64, "record mode or play mode"*), a data storage (*refer to c. 7, ll. 32-34*), an MP3 player and a voice recorder (*audio capture, refer to c. 3, l. 56, c. 6, ll. 16-38, c. 7, ll. 20-21*); and

a memory device (memory card) as a main data recording medium storing data of the various function units (*refer to c. 7, ll. 32-34 & Figure 8, "16"*). Hashimoto further discloses a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal (*refer to c. 6, ll. 60-67 and c. 7, ll. 32-41*), a MPEG decoder to decode MPEG video data (*refer to c. 6, ll. 60-67*), an audio interface to produce MP3 audio data (*refer to c. 6, ll. 16-38*), a Universal Serial Bus (USB) interface to transceive data (*refer to c. 9, ll. 12-16*), and a storage medium to store data (*refer to c. 6, ll. 16-38, "DRAM"*).

However, Hashimoto does not disclose that the memory device is a micro-compact hard disc drive.

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Suzuki discloses a video/audio data recording/reproducing apparatus (electronic camera) capable of obtaining moving image data and still image data (refer to [0003]) comprising a memory (*refer to [0136] & Figure 2, "Storage Medium 195"*). Suzuki discloses that there are numerous varieties of memory devices that are acceptable, including a memory card or a hard disc (*refer to [0136]*). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a hard disc as a memory device as disclosed by Suzuki in the video/audio data recording/reproducing apparatus disclosed by Hashimoto because (1) Suzuki demonstrates that memory cards and hard discs can accomplish the same tasks in electronic cameras and (2) hard discs are notoriously well-known memory devices.

Hashimoto discloses that the CPU can be a single chip (*c. 8, ll. 65-66*). However, Hashimoto in view of Suzuki does not disclose that the TV endoder, MPEG decoder, audio interface, USB and storage medium are located on a single chip controller.

Hattori discloses a single chip video camera comprising various signal processing components and an NTSC encoder (*[0135], [0143], and Figure 15, "NTSC Encoder 302"*). It would have been obvious to one having ordinary skill in that art at the time of the invention to place various signal processing components on a single chip as disclosed by Hattori in the apparatus disclosed by Hashimoto in view of Suzuki in order to reduce the size and complexity of the apparatus.

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Regarding **claim 2**, refer to the rejection of claim 1 and Hashimoto further discloses a system bus (*refer to c. 9, ll. 12-16*);

a multiplexer/system resource controller in communication with the system bus and outputting image signals (*refer to c. 9, ll. 12-16*);

a motion picture experts group compressor/decompressor in communication with the system bus and compressing/decompressing data of the function units (*refer to c. 6, ll. 60-67*);

a data recording medium interface in communication with the system bus and reading/writing data from/to a memory unit and the micro-compact hard disc drive (*refer to c. 7, ll. 2-12*);

a serial bus interface in communication with the system bus and receiving/transmitting the data of the function units (*refer to c. 9, ll. 12-16*);

a video processor in communication with the system bus and processing image signals input through the digital camcorder and still camera function units or input through an input terminal (*refer to c. 6, ll. 60-67 and c. 7, ll. 32-41*);

an audio encoder/decoder in communication with the system bus and processing input/output audio signals for the MP3 player and the voice recorder (*refer to c. 6, ll. 16-38*); and

a central processing unit controlling the controller via the system bus (*refer to c. 8, l. 47 – c. 9, l. 16*).

However, Hashimoto does not explicitly disclose that the serial interface is a USB interface or that the MPEG compressor/decompressor is MPEG-4.

However, Hashimoto does not disclose that the serial terminal is a USB terminal.

While Hashimoto does not explicitly disclose that the interface is a USB interface, Official Notice is taken that a USB interface is a notoriously well-known serial interface in the art of digital cameras. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a USB interface as is well known in the art for the interface disclosed by Hashimoto because USB is a widely accepted and used interface standard.

Similarly, While Hashimoto does not explicitly disclose that the MPEG compressor/decompressor is MPEG-4, Official Notice is taken that MPEG compressor/decompressor is MPEG-4 is a notoriously well-known format in the art of digital cameras. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use MPEG-4 as is well known in the art for the interface disclosed by Hashimoto because MPEG-4 is a widely accepted and used interface standard.

Regarding **claim 3**, refer to the rejection of claim 1 and Hashimoto further discloses a mode shifting switch selecting the function units (*refer to c. 3, ll. 55-58*).

Regarding **claim 4**, refer to the rejection of claim 1 and Hashimoto further discloses a transient integrated circuit interfacing the memory device with the controller (*refer to c. 7, ll. 2-12 and Figure 8, "interface circuit 14"*).

Regarding **claim 5**, refer to the rejection of claim 1 and Hashimoto further discloses a body including the single chip controller and the memory device (*refer to Figures 1A-B*); and

a station communicatively receiving the body and providing one or more transmission/reception terminals allowing data transmission/reception between the body and external computing devices (*refer to c. 4, ll. 48-67 and Figures 2A-C, interfaces "188" and "184"*).

Regarding **claim 6**, refer to the rejection of claim 5 and Hashimoto further discloses that the station and the body are communicatively connected via a connection terminal in the station and the body, respectively (*refer to c. 4, ll. 11-67 and Figures 1A-B, "electrical contacts 158" on the camera and Figures 2A-C, "pins 192" on the station*).

Regarding **claim 23**, refer to the rejection of claim 5 and Hashimoto further discloses that the at least one transmission/reception terminal provided on the station is a serial bus (RS-232) terminal.

However, Hashimoto does not disclose that the serial terminal is a USB terminal.

While Hashimoto does not explicitly disclose that the interface is a USB interface, Official Notice is taken that a USB interface is a notoriously well-known serial interface in the art of digital cameras. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a USB interface as is

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well known in the art for the interface disclosed by Hashimoto because USB is a widely accepted and used interface standard.

Regarding **claim 24**, refer to the rejection of claim 1 and Hashimoto further discloses a video/audio data recorder/reproducer (Figure 1).

Regarding **claim 25**, refer to the rejection of 24 and Suzuki further discloses a video/audio data recording/reproducing apparatus (electronic camera) capable of obtaining moving image data and still image data (refer to [0003]) comprising a memory (refer to [0136] & Figure 2, "Storage Medium 195"). Suzuki discloses that there are numerous varieties of memory devices that are acceptable, including a memory card or a hard disc (refer to [0136]).

Regarding **claim 26**, refer to the rejection of claim 24 and Hashimoto further discloses a station communicatively support the video/audio data recorder/reproducer and to provide one or more transmission/reception terminals allowing data transmission/reception between the video/audio data recorder/reproducer and an external device via the station (*c. 4, ll. 44-61 and Figures 2A-C*).

7. Claims 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Suzuki in further view of Hattori and Bianchi.

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Regarding **claim 7**, Hashimoto in view of Suzuki in further view of Hattori discloses the video/audio data recording/reproducing apparatus required by claim 1. Hashimoto further discloses a (docking) station that communicatively receives the video/audio data recording/reproducing apparatus (refer to the rejection of claim 5). However, Hashimoto in view of Suzuki in further view of Hattori does not disclose that the station comprises one or more manipulation buttons controlling the function units while the body is seated on the station.

Bianchi discloses a video/audio data recorder/reproducer [camera] (*refer to [0024], [0026]-[0032], [0041]-[0045], [0049]-[0052] and Figure 1, "digital still camera 18"*) communicatively coupled to a docking station (*refer to [0028] and Figure 1, "docking station 14"*) wherein the docking station comprises one or more manipulation buttons controlling the function units while the body is seated on the station (*refer to [0040], [0044], [0057] and Figure 1: docking station comprises a remote control*). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to allow manipulation of buttons to control the function units of the camera (i.e. the video/audio data recorder/reproducer) as disclosed by Bianchi in the station disclosed by Hashimoto in view of Suzuki in further view of Hattori in order to access the functions of the camera (*Bianchi, [0057]*), e.g. review pictures in picture review mode (*Bianchi, [0026]*).

Regarding **claim 8**, refer to the rejection of claim 5 and Bianchi further discloses that the camera (body) comprises a battery (*refer to [0034], [0041]-[0043] and Figure 2,*

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“batteries 271”) and the station recharges the batter from an external power supply while the body is seated on the station (*refer to [0040], [0043] and Figure 2*).

Regarding **claim 9**, refer to the rejection of claim 5 and Bianchi further discloses that the station comprises a USB, an SVHS, an AV, or a video line input, or any combinations thereof, as the transmission/reception terminals (*refer to [0033] and Figure 1, “A/V port” and “A/V cable”*).

Regarding **claim 10**, refer to the rejection of claim 5 and Bianchi further discloses that the station comprises a signal reception unit receiving operations signals from a remote controller to control the function units while the body is seated on the station (*refer to [0040], [0044], [0057] and Figure 1, “IR receiver 44” and “IR remote control 46”*).

Regarding **claim 11**, refer to the rejection of claim 5 and Hashimoto further discloses a removable storage wherein the body further comprises a window to check the removable storage connection (*refer to c. 4, ll. 19-21 and Figure 1B, “slot 160”*).

Regarding **claim 12**, refer to the rejection of claim 1 and Hashimoto further discloses a video line input, wherein the controller receives image signals from the video line input, digitizes and compresses the image signals and stores the image

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signals in the memory device, thereby providing a video recorder as one of the various function units (*refer to c. 6, l. 39 - c. 7, l. 49*).

Regarding **claim 13**, refer to the rejection of claim 12 and Hashimoto further discloses a display unit displaying an image, wherein the controller reads the image signals from the memory device, decompresses the read image signals and outputs the decompressed image signals to the display unit for displaying, thereby providing a video reproducer as another function unit (*refer to c. 6, l. 39 - c. 7, l. 49*).

8. Claims 26-32 and 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Suzuki in further view of Hattori and US Pub. No. 20030117499 filed by Bianchi et al., hereinafter "Bianchi".

In the event that the Applicant disagrees with the previous claim 26 rejection:

Regarding **claim 26**, Hashimoto in view of Suzuki in further view of Hattori disclose the limitations required by claim 24 (*refer to the rejection of claim 24*). Hashimoto further discloses a station/dock (Figures 2A-C). However, Hashimoto in view of Suzuki in further view of Hattori does not disclose a station communicatively support the video/audio data recorder/reproducer and to provide one or more transmission/reception terminals allowing data transmission/reception between the video/audio data recorder/reproducer and an external device via the station.

Bianchi discloses a station (*refer to [0028] and Figure 1, "docking station 14"*) to communicatively support the video/audio data recorder/reproducer and to provide one

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or more transmission/reception terminals (*refer to [0033], "A/V port"*) allowing data transmission/reception between the video/audio data recorder/reproducer and an external device via the station (*refer to [0033] and Figure 1*). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have a station communicatively support the video/audio data recorder/reproducer as disclosed by Bianchi in the apparatus disclosed by Hashimoto in view of Suzuki in further view of Hattori in order to communicate with an external device, such as a personal computer (*Hashimoto, c. 4, ll. 53-56*).

Regarding **claim 27**, refer to the rejection of claim 26 and Bianchi further discloses that the station and the video/audio data recorder/reproducer communicatively connect via a connection terminal in the station and the video/audio data recorder/reproducer, respectively (*refer to [0026] and Figure 1, "electrical contacts 24" and "mating electrical contacts 28"*).

Regarding **claim 28**, refer to the rejection of claim 26 and Bianchi further discloses that the station comprises one or more function manipulators controlling the function units while the video/audio data recorder/reproducer sits on the station (*refer to [0040], [0044], [0057] and Figure 1: docking station comprises a remote control*).

Regarding **claim 29**, refer to the rejection of claim 26 and Bianchi further discloses that the video/audio data recorder/reproducer further comprises a battery (*refer to [0034], [0041]-[0043] and Figure 2, "batteries 271"*), and

the station further comprises a charger to charge the battery from an external power supply while the video/audio data recorder/reproducer sits on the station (*refer to [0040], [0043] and Figure 2*).

Regarding **claim 30**, refer to the rejection of claim 26 and Bianchi further discloses a battery receiving area to receive a battery (*refer to [0026] and Figure 1, "electrical contracts 24" receive camera 18 which has "batteries 271", [0034], [0041]-[0043] and Figure 2*); and

a charger to charge the battery from an external power supply while the battery is in the receiving area of the station (*refer to [0040], [0043] and Figure 2*).

Regarding **claim 31**, refer to the rejection of claim 26 and Bianchi further discloses that the station comprises a Universal Serial Bus, an SVHS, an AV, or a video line input, or any combinations thereof, as the one or more transmission/reception terminals (*refer to [0033] and Figure 1, "A/V port" and "A/V cable"*).

Regarding **claim 32**, refer to the rejection of claim 26 and Bianchi further discloses wherein the video/audio data recorder/reproducer further comprises: a camera unit; and a battery compartment positioned perpendicularly to the camera unit

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(refer to Figure 2 and without a reference plane, any part of the battery compartment could be either in parallel or perpendicular with the camera unit).

Regarding **claim 35**, refer to the rejection of claim 26 and Bianchi further discloses that the video/audio data recorder/reproducer further comprises:

a display unit (*refer to [0032]*); and

one or more transceiver terminals to communicably connect with an external device (*refer to [0026] and Figure 1, "mating electrical contacts 28" to connect to docking station 14; also refer to [0034], digital camera can include a computer port, e.g. USB*),

wherein the station communicatively supports the video/audio data recorder/reproducer to expose the display unit and the one or more transceiver terminals (*refer to [0026] and Figure 1: when the camera is docked it is in picture review mode; also refer to [0056]*).

Regarding **claim 36**, refer to the rejection of claim 26 and Bianchi further discloses that the video/audio data recorder/reproducer further comprises one or more function manipulators (*refer to [0027]-[0032]*), and

wherein the station comprises one or more function manipulators corresponding to the recorder/reproducer function manipulators while the video/audio data recorder/reproducer sits on the station (*refer to [0040], [0044], [0057] and Figure 1: docking station comprises a remote control*).

Regarding **claim 37**, refer to the rejection of claim 35 and Bianchi further discloses display unit comprises one or more function manipulators (*refer to [0032]*) and the display unit is rotatable to be exposed, including the function manipulators, while the video/audio data recorder/reproducer sits on the station (*when docked, the station and camera may be rotated together, therefore the display may be rotated, to be exposed... claim does not require display to rotate away from a "body"*).

Regarding **claim 38**, refer to the rejections of claims 36 and 37 and Bianchi further discloses that the station further comprises a sloped receiving area to angle the supported video/audio data recorder/reproducer to enable easy viewing and manipulation of the display unit of the video/audio data recorder/reproducer (*refer to Figure 1*).

Regarding **claim 39**, refer to the rejection of claim 25 and Bianchi further discloses a display (*refer to [0032] and Figure 1*) and a battery (*refer to [0035] and Figure 2*), wherein the display, the storage medium and the battery are all in a parallel relation to each other (*without further description of a reference plane or orientation, it can be said that some part of the display, storage medium and battery are all in parallel on some plane*). It would have been obvious to one of ordinary skill in the art at the time of the invention to have a battery, display and storage medium in a parallel relation as

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disclosed by Bianchi in any of the apparatus' disclosed by Hashimoto, Suzuki and Hattori as these components have become standard in the art of photography.

9. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Suzuki in further view of Hattori, Bianchi and US Patent No. 7,317,475 issued to Arai et al., hereinafter "Arai".

Regarding **claim 33**, Hashimoto in view of Suzuki in further view of Hattori and Bianchi discloses the required limitations of claim 33. Bianchi further discloses a zoom function (*refer to [0028]*). However, Hashimoto in view of Suzuki in further view of Hattori and Bianchi does not disclose that the zoom controller is manipulated by sliding a circular-arc.

Arai discloses a camera with a zoom function wherein the zoom controller is manipulated by sliding a circular-arc (refer to Figure 18). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to control zoom by manipulating a circular-arc as disclosed by Arai in the system disclosed by Hashimoto in view of Suzuki in further view of Hattori and Bianchi because rotational "dial" type switches are common as manipulating devices in electronic devices.

Regarding **claim 34**, refer to the rejection of claim 33 and Bianchi discloses that the camera zoom button is positioned parallel or perpendicular to the camera unit because parallel or perpendicular is describing all possible orientations.

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10. Claims 40-42, 44/41, 44/42, 47-49, 52 and 57 are rejected under 35 U.S.C.

103(a) as being unpatentable over Hashimoto in view of Hattori.

Regarding **claim 40**, Hashimoto discloses an apparatus comprising:

a programmable single chip controller (*refer to c. 8, l. 47 - c. 9, l. 16, "CPU"*) to control processing by various function units as a digital camcorder (*video capture, refer to c. 3, ll. 57, c. 6, ll. 60-67, c. 7, ll. 20-23*), a digital still camera (*still image capture, refer to c. 6, ll. 60-67, c. 7, ll. 20-23*), a video recorder/reproducer (*refer to c. 3, ll. 61-64, "record mode or play mode"*), a data storage (*refer to c. 7, ll. 32-34*), an MP3 player, or voice recorder (*audio, refer to c. 3, l. 56, c. 6, ll. 16-38, c. 7, ll. 20-21*), or any combinations thereof; and

a station (*refer to c. 4, ll. 48-67 and Figures 2A-C*) to communicatively support the programmable controller and comprising:

one or more transmission/reception terminals to enable data transmission/reception between the programmable controller and an external device through the station (*refer to c. 4, ll. 48-61*).

wherein at least one of the transmission/reception terminals is a serial (RS-232) terminal.

However, Hashimoto does not disclose that the serial terminal is a USB terminal.

While Hashimoto does not explicitly disclose that the interface is a USB interface, Official Notice is taken that a USB interface is a notoriously well-known serial interface in the art of digital cameras. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a USB interface as is

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well known in the art for the interface disclosed by Hashimoto because USB is a widely accepted and used interface standard.

Hashimoto further discloses a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal (*refer to c. 6, ll. 60-67 and c. 7, ll. 32-41*), a MPEG decoder to decode MPEG video data (*refer to c. 6, ll. 60-67*), an audio interface to produce MP3 audio data (*refer to c. 6, ll. 16-38*), a Universal Serial Bus (USB) interface to transceive data (*refer to c. 9, ll. 12-16*), and a storage medium to store data (*refer to c. 6, ll. 16-38, "DRAM"*).

Hashimoto further discloses that the CPU can be a single chip (*c. 8, ll. 65-66*). However, Hashimoto does not disclose that the TV endoder, MPEG decoder, audio interface, USB and storage medium are located on a single chip controller.

Hattori discloses a single chip video camera comprising various signal processing components and an NTSC encoder (*[0135], [0143], and Figure 15, "NTSC Encoder 302"*). It would have been obvious to one having ordinary skill in that art at the time of the invention to place various signal processing components on a single chip as disclosed by Hattori in the apparatus disclosed by Hashimoto in order to reduce the size and complexity of the apparatus.

Regarding **claim 41**, Hashimoto discloses an apparatus comprising:

a single chip controller (*as claimed, the "controller" can as a specific circuit within the digital camera (such as "CPU", refer to c. 8, l. 47 - c. 9, l. 16) or the entire digital*

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camera itself (refer to Figures 1A-B)) to control processing of function units as an audio (audio capture, refer to c. 3, l. 56, c. 6, ll. 16-38, c. 7, ll. 20-21), video (video capture, refer to c. 3, ll. 57, c. 6, ll. 60-67, c. 7, ll. 20-23), or still image (still image capture, refer to c. 6, ll. 60-67, c. 7, ll. 20-23), or any combinations thereof, reproducer (refer to c. 3, ll. 61-64, "play mode"), and a data storage (refer to c. 7, ll. 32-34); and

Hashimoto further discloses a TV signal encoder to convert a data signal into a video signal according to either the NTSC (National television system committee) scheme or the PAL (Phase alternation line) scheme for an external device via an output terminal (*refer to c. 6, ll. 60-67 and c. 7, ll. 32-41*), a MPEG decoder to decode MPEG video data (*refer to c. 6, ll. 60-67*), an audio interface to produce MP3 audio data (*refer to c. 6, ll. 16-38*), a Universal Serial Bus (USB) interface to transceive data (*refer to c. 9, ll. 12-16*), and a storage medium to store data (*refer to c. 6, ll. 16-38, "DRAM"*).

Hashimoto further discloses that the CPU can be a single chip (*c. 8, ll. 65-66*). However, Hashimoto does not disclose that the TV endoder, MPEG decoder, audio interface, USB and storage medium are located on a single chip controller.

Hattori discloses a single chip video camera comprising various signal processing components and an NTSC encoder (*[0135], [0143], and Figure 15, "NTSC Encoder 302"*). It would have been obvious to one having ordinary skill in that art at the time of the invention to place various signal processing components on a single chip as disclosed by Hattori in the apparatus disclosed by Hashimoto in order to reduce the size and complexity of the apparatus.

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Regarding **claim 42**, refer to the rejection of claim 41 and Hashimoto further discloses that the audio reproducer reproduces MP3 audio data (*"MPEG-2 audio" as well as other formats; refer to c. 6, ll. 26-29*), the video reproducer reproduces MPEG video data and the still image reproducer reproduces JPEG image data (*as well as other formats; refer to c. 6, ll. 60-67*).

Regarding **claims 44/41 and 44/42**, refer to the rejection of claim 41 and Hashimoto further discloses a first housing (*Figure 1, top or bottom*); a second housing in a parallel relation facing the receiving area of the first housing (*Figure 1, bottom or top*); and

a middle housing having one or more operational manipulators to control the controller and supported in between the first and second housings (*Figure 1B, middle part*).

Regarding **claim 47**, refer to the rejection of claim 43 and Hashimoto further discloses a station to communicatively support the controller to provide one or more transmission/reception terminals allowing data transmission/reception between the controller and an external device via the station (*refer to c. 4, ll. 48-67 and Figures 2A-C, interfaces "188" and "184"*).

Regarding **claim 48**, refer to the rejection of claim 43 and Hashimoto further discloses that the controller further comprises one or more function manipulators and

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the station comprises one or more function manipulators corresponding to the controller function manipulators while the controller sits on the station (*refer to c. 4, ll. 11-67 and Figures 1A-B, "electrical contacts 158" on the camera and Figures 2A-C, "pins 192" on the station*).

Regarding **claim 49**, refer to the rejection of claim 47 and Hashimoto further discloses that the station comprises one or more function manipulators controlling the function units while the controller sits on the station (*Figures 2A-C, "pins 192" on the station*).

Regarding **claim 52**, refer to the rejection of claim 47 and Hashimoto further discloses that the station further comprises a Universal Serial Bus, an SVHS, an AV, or a video line input, or any combinations thereof, as the one or more transmission/reception terminals (*refer to c. 4, ll. 48-61*).

Regarding **claim 57**, refer to the rejection of claim 43 and Hashimoto further discloses that the storage medium is a flash memory (*refer to c. 7, ll. 9 and Figure 8, "16"*).

11. Claims 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Hattori in further view of Suzuki.

Regarding **claim 45**, Hashimoto in view of Hattori discloses that required limitations of claim 44. Hashimoto further discloses that the controller is implemented on a circuit board (inherent that the CPU chip is put on some sort of circuit board). Hashimoto further discloses that the first housing comprises a receiving area to face inside the apparatus and to accommodate the memory (*refer to Figure 1, slot 160*). However, Hashimoto in view of Hattori does not disclose that the memory device is a micro-compact hard disc drive.

Suzuki discloses a video/audio data recording/reproducing apparatus (electronic camera) capable of obtaining moving image data and still image data (*refer to [0003]*) comprising a memory (*refer to [0136] & Figure 2, "Storage Medium 195"*). Suzuki discloses that there are numerous varieties of memory devices that are acceptable, including a memory card or a hard disc (*refer to [0136]*). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a hard disc as a memory device as disclosed by Suzuki in the video/audio data recording/reproducing apparatus disclosed by Hashimoto in view of Hattori because (1) Suzuki demonstrates that memory cards and hard discs can accomplish the same tasks in electronic cameras and (2) hard discs are notoriously well-known memory devices.

Regarding **claim 46**, *refer to the rejection of claim 45* and Hashimoto further discloses a liquid crystal display (LCD) monitor provided on the first housing and facing away from the receiving area and positioned in a parallel plane to the micro-compact hard disk drive (*refer to c. 3, ll. 58-61 and Figures 1A-B*).

12. Claims 50, 51 and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto in view of Hattori in further view of Bianchi.

Regarding **claim 50**, Hashimoto in view of Hattori discloses the controller and station required by claim 47. However, Hashimoto in view of Hattori does not disclose a battery, wherein the station further comprises a charger to charge the battery from an external power supply while the controller sits on the station.

Bianchi discloses a "controller" or digital camera (*refer to [0024], [0026]-[0032], [0041]-[0045], [0049]-[0052] and Figure 1, "digital still camera 18"*) communicatively coupled to a docking station (*refer to [0028] and Figure 1, "docking station 14"*), the digital camera comprising transceiver terminals (*refer to [0034]*). Bianchi further discloses a battery, wherein the station further comprises a charger to charge the battery from an external power supply while the controller sits on the station (*refer to [0034], [0041]-[0043] and Figure 2, "batteries 271"; refer to [0040], [0043] and Figure 2 for charging*). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to charge the camera's batteries while docked as disclosed by Bianchi in the system disclosed by Hashimoto in view of Hattori in order to provide power to the camera.

Regarding **claim 51**, Hashimoto in view of Hattori discloses the controller and station required by claim 47. However, Hashimoto in view of Hattori does not disclose a

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battery receiving area to receive the battery; and a charger to charge the battery from an external power supply while the battery is in the receiving area of the station.

Bianchi discloses a "controller" or digital camera (*refer to [0024], [0026]-[0032], [0041]-[0045], [0049]-[0052] and Figure 1, "digital still camera 18"*) communicatively coupled to a docking station (*refer to [0028] and Figure 1, "docking station 14"*), the digital camera comprising transceiver terminals (*refer to [0034]*). Bianchi further discloses a battery receiving area to receive the battery (*refer to [0026] and Figure 1, "electrical contacts 24" receive camera 18 which has "batteries 271", [0034], [0041]-[0043] and Figure 2*) and a charger to charge the battery from an external power supply while the battery is in the receiving area of the station (*refer to [0040], [0043] and Figure 2*). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to charge the camera's batteries while docked as disclosed by Bianchi in the system disclosed by Hashimoto in view of Hattori in order to provide power to the camera.

Regarding **claim 53**, Hashimoto in view of Hattori discloses the controller and station required by claim 47. Hashimoto further discloses that the controller further comprises one or more transceiver terminals (*refer to c. 4, ll. 44-47*). However, Hashimoto in view of Hattori does not disclose a display (integrated with the controller) and that the station communicatively supports the controller to expose the display including the one or more transceiver terminals.

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Bianchi discloses a "controller" or digital camera (*refer to [0024], [0026]-[0032], [0041]-[0045], [0049]-[0052] and Figure 1, "digital still camera 18"*) communicatively coupled to a docking station (*refer to [0028] and Figure 1, "docking station 14"*), the digital camera comprising transceiver terminals (*refer to [0034]*). Bianchi further discloses a display (*refer to [0032]*) wherein the station communicatively supports the controller to expose the display including the one or more transceiver terminals (*refer to [0026], "picture review mode" and Figure 1*). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a display that is exposed when the "controller" or camera is docked as disclosed by Bianchi in the system disclosed by Hashimoto in view of Hattori in order to review pictures while the camera is docked via the camera's display.

Regarding **claim 54**, refer to the rejection of claim 53 and Bianchi further discloses that the display comprises one or more function manipulators (*refer to [0032]*) and the display is rotatable to be exposed, including the function manipulators, while the controller sits on the station (*when docked, the station and camera may be rotated together, therefore the display may be rotated, to be exposed... claim does not require display to rotate away from a "body"*).

Regarding **claim 55**, refer to the rejections of claims 47 and 53 and Bianchi further discloses that the station further comprises a sloped receiving area to angle the

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supported controller to enable easy viewing and manipulation of the display of the controller (*refer to Figure 1*).

Regarding **claim 56**, refer to the rejection of claim 43 and Bianchi further discloses a display (*refer to [0032] and Figure 1*) and a battery (*refer to [0035] and Figure 2*), wherein the display, the storage medium and the battery are all in a parallel relation to each other (*without further description of a reference plane or orientation, it can be said that some part of the display, storage medium and battery are all in parallel on some plane*).

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD M. BEMBEN whose telephone number is (571)272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/
Supervisory Patent Examiner, Art
Unit 2622

RMB